

# FLIGHT

The  
AIRCRAFT  
ENGINEER  
&  
AIRSHIPS

First Aero Weekly in the World

Founder and Editor: STANLEY SPOONER

A Journal devoted to the Interests, Practice, and Progress of Aerial Locomotion and Transport

OFFICIAL ORGAN OF THE ROYAL AERO CLUB OF THE UNITED KINGDOM

No. 818. (No. 35, Vol. XVI.)

AUGUST 28, 1924

[Weekly, Price 6d.  
Post free, 7d.]

## Flight

*The Aircraft Engineer and Airships*

Editorial Offices: 36, GREAT QUEEN STREET, KINGSWAY, W.C. 2

Telegrams: Truditur, Westcent, London. Telephone: Gerrard 1828

Annual Subscription Rates, Post Free:

United Kingdom .. 30s. 4d. Abroad .. 33s. 0d.\*

These rates are subject to any alteration found necessary under abnormal conditions and to increases in postage rates

\* European subscriptions must be remitted in British currency

### CONTENTS

|   | PAGE |
|---|------|
| Editorial Comment                       |      |
| I.A.L. Traffic Returns .. .. .          | 535  |
| The Slow-Flying Tests at Lympe .. .. .  | 536  |
| The Blackburn-Napier "Cubaroo" .. .. .  | 537  |
| Light 'Plane and Glider Notes .. .. .   | 540  |
| Royal Air Force .. .. .                 | 544  |
| R.A.F. Intelligence .. .. .             | 544  |
| Progress in the Big Flights .. .. .     | 544  |
| Air Ministry Notices .. .. .            | 545  |
| Fine Feathers Make Fine 'Planes .. .. . | 545  |
| Air Post Stamps .. .. .                 | 546  |

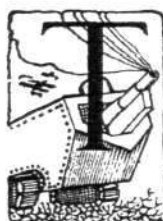
### DIARY OF FORTHCOMING EVENTS

Club Secretaries and others desirous of announcing the dates of important fixtures are invited to send particulars for inclusion in the following list:—

1924

- Sept. 5 .... Entries Close at Double Fees for Light 'Plane Competition at Lympe.
- „ 27-28 Eliminating Tests for Light 'Plane Competition at Lympe.
- „ 27-  
Oct. 8 Wireless Exhibition at Albert Hall, Kensington.
- Sept. 29-  
Oct. 4 2-Seater Light 'Plane Competition at Lympe.
- Oct. 2 .... Aero Golfing Society. Autumn Meeting, at Moor Park Golf Club, for A.G.S. Challenge Cup presented by Cellon (Richmond) Ltd.
- „ 2 .... Lieut.-Col. H. T. Tizard, A.F.C., F.R.Ae.S. (of the Department of Scientific and Industrial Research), Chairman: Inaugural Lecture.
- „ 4 .... Grosvenor Challenge Cup Race at Lympe.
- „ .... Schneider Cup Race, Baltimore.
- „ 16 .... Dr. A. Rohrbach (of the Rohrbach Metall-Flugzeugbau Co.) "Large All-Metal Sea-planes," before R.Ae.S.
- „ 30 .... Major J. S. Buchanan, A.F.R.Ae.S. (of the Technical Department, Air Ministry): "The R.Ae.C. Light Aeroplane Competitions," before R.Ae.S.
- Dec. 5-21 Paris Aero Show.

## EDITORIAL COMMENT.



### I.A.L. Traffic Returns

HERE seems to be a double meaning hidden in the side heading to this column. The fact that Returns is spelt with a capital "R" should indicate that the word is intended to be a noun, but even if it is regarded as a verb the heading still can be regarded as a "true bill." According to the traffic returns just issued by Imperial Airways, Ltd., traffic *has* returned, and so both interpretations of the heading are correct. It will be recollected that the dispute between the organisers of Imperial Airways, Ltd., and the pilots led to a very considerable delay in getting started, and there was a hiatus in the firm's operations, which nominally should have started on April 1, 1924, but which did not, in point of fact, commence until several weeks later. In the interim all the air traffic to and from Croydon was carried by foreign machines, but the traffic figures just published indicate that once Imperial Airways got going it was not long before a large proportion of the traffic was again attracted to the British air lines. At the luncheon given by the Federation of British Civil Pilots some weeks ago, one had an indication of the intensity of the work being carried out, for out of the comparatively small number of pilots belonging to the Federation no less than 16 were absent on flying duty, in spite of the fact that the luncheon was held on a Sunday. The figures issued by Imperial Airways, Ltd., must be regarded as distinctly encouraging, more especially if it is remembered that the first two months of the firm's operations scarcely amount to as much as a normal single month's work, owing to the delay referred to.

During April and May 47,940 miles were flown, the ton-miles amounting to 25,630, while the receipts for these two months totalled £13,271. During the month of June 99,710 miles were flown, or 47,353 ton-miles. The receipts were £27,398. July, however, in spite of very unfavourable weather conditions, showed a vast improvement in every respect. No less than 146,840 miles were flown, or 72,827 ton-miles. The receipts were £42,520. Even allowing for the

fact that in previous years, while the four original companies were working independently, July has always been one of the best months, these results appear extremely good, and there is good reason to believe that during next summer, and in increasing degree as time goes on, even more favourable figures will be attained.

It may be of interest to examine briefly what the figures indicate. Miles flown naturally mean machine-miles, while ton-miles show number of machine-miles multiplied by weight of load carried. From this fact it is evident that during April and May the average load carried was 0.535 ton or 1,200 lbs. The receipts for carrying this load were £13,271, which works out at £0.517 or 10s. 4d. per ton-mile.

For June the average load carried works out at 0.475 ton, and the receipts at £0.578 or 11s. 7d. per ton-mile. Taking the figures for July, the average load becomes 0.496 ton, at a payment of £0.584 or about 11s. 8d. per ton-mile. One can thus infer that, broadly speaking, with the present equipment, the average load carried is half-a-ton, and the payment received averages just over 11s. per ton-mile.

It is probably fair to assume that during the months under consideration the bulk of the load carried was in the form of passengers. During the winter months there has hitherto generally been a greater proportion of parcels and goods, and the effect of this change-over from passengers to goods should be noticeable if and when Imperial Airways, Ltd., issue their next traffic returns.

Generally speaking, the machines so far in use on the air routes have been designed primarily with a view to carrying passengers, and it would appear that the time has now come for putting on the services, during the winter and on certain routes, at any rate, machines especially designed for goods-carrying. It is now several years since Mr. Folland, of the Gloucestershire Aircraft Co., designed a goods-carrier in which the rear portion of the fuselage folded along the wings, thus opening the whole of the cargo space for easy loading and unloading of goods. At that time none of the then existing firms appeared interested in goods aeroplanes, but there is every reason to believe that things have changed considerably, and that a machine specially designed, of greater economy in first cost, upkeep and running cost, would be a paying proposition. The time saved by sending goods, and especially parcels, by air is so great that one could afford to run goods machines which were much slower than the present passenger liners, with consequent increase in economy, and still show a very valuable saving in time. Of other improvements such as the use of three-engined machines for night-flying, the establishment of flying-boat services are also foreshadowed, but it would seem that now is the time for considering "freighters of the air" which, if orders be placed at once, could be completed in time to prove very useful during the coming winter.

shall be flown over a straight-line course of not less than 500 yards in length and 25 yards wide, competitors flying four laps of the course, two up and two down, and the speed being taken on each of the four laps, the average figure being taken as the low speed of the machines. Against this arrangement there is nothing to be said. There is hardly any other way in which the actual low speed of the machines could be so accurately ascertained. But the risk comes in the stipulation that competitors shall fly at a height of not more than 20 ft. above the ground.

We have no idea what prompted those who drafted the rules to choose this height. Certainly it cannot have been considered impossible accurately to time competitors if they were flying somewhat higher than this. Presumably, therefore, the height of 20 ft. was chosen with the idea that a crash from this height is not likely seriously to injure a pilot. If this is the reason, we heartily disagree.

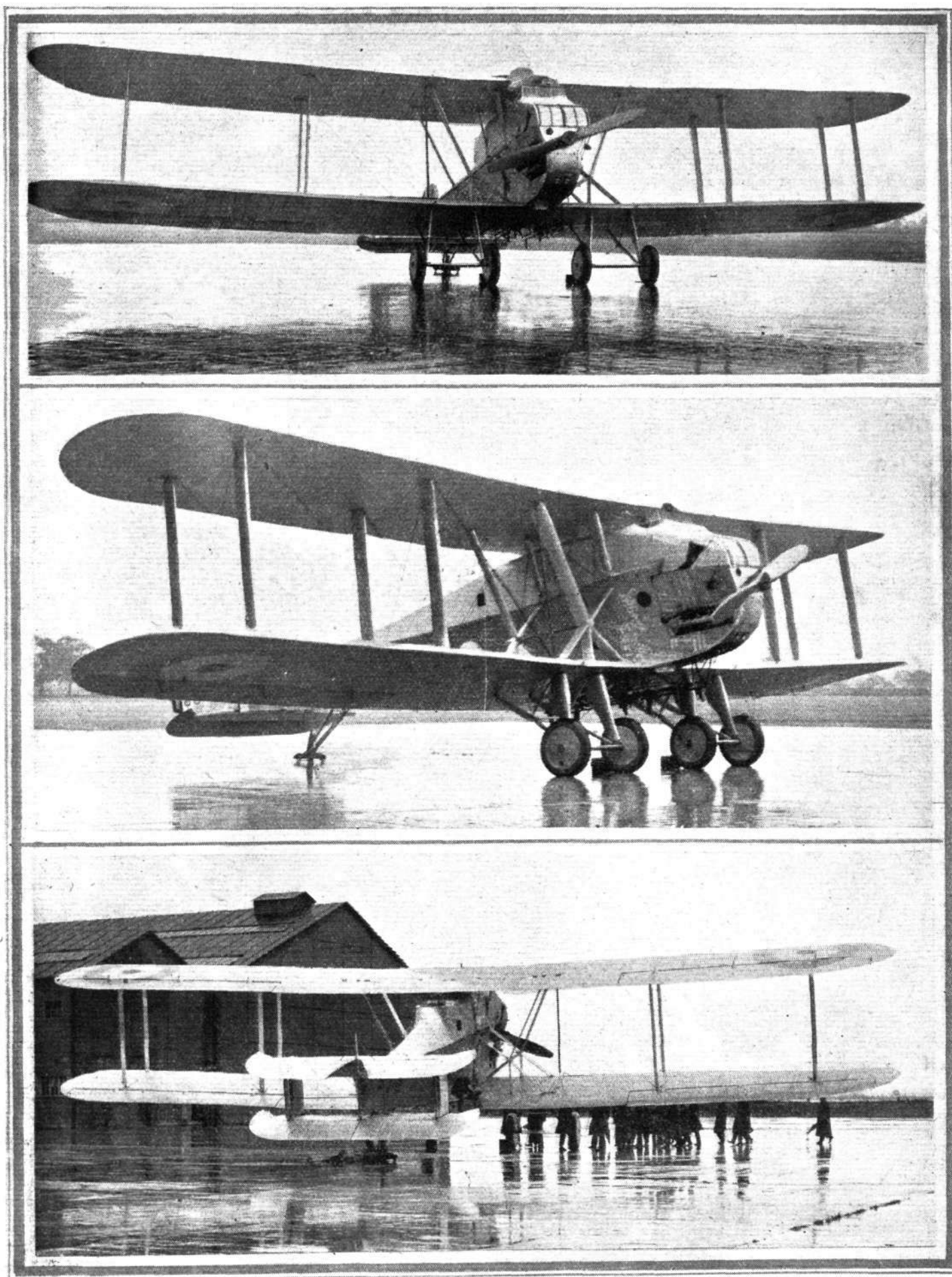
We know, of course, that a light 'plane comes out of a stall very quickly, and without losing very much height. At 20 ft., however, there seems to be a very great risk of a stalled machine hitting the ground nose first just as it is getting ready to pull out of the stall. In the circumstances, therefore, it would appear to have been wiser, and certainly safer, to have decided upon a height greater than 20 ft. We are not prepared to say what is the minimum altitude at which a light 'plane may safely be stalled. Flight-Lieut. Longton repeatedly stalled the English Electric Company's "Wren" at a height of 50 or 60 ft. at Lympne last year, but then the "Wren" was very lightly loaded, and most of the machines entered this year will certainly carry a considerably greater load per square foot, and will, presumably, require a correspondingly greater drop before coming out of a stall. We should imagine that 75 to 100 ft. would be a more suitable height, and would suggest that the Royal Aero. Club obtain the views of entrants of machines on this subject. There is little doubt that all the entrants would in turn talk the matter over with their pilots, and in this way some arrangement, satisfactory to timekeepers and observers as well as to the entrants and pilots, might be arrived at. The present rule is, we can hardly doubt, looked upon as highly dangerous by the majority of competitors and pilots.

It may, of course, be argued that crashes due to stalls are not likely to occur. It should be realised, however, that the position is such that a stall is very easily brought about. Great importance is placed on speed range, and the majority of the machines are designed to gain their marks at the lower end of the scale. Consequently, every mile, or even fraction of a mile, by which the low speed can be reduced will count heavily in the award of marks. There is thus every inducement to flying close to the stalling angle. If a strong gust strikes a machine under these circumstances, and the engine, which will be well throttled down, stutters a little or does not respond to the opening of the throttle at once, all the elements of a dangerous stall at low height are present. We would strongly urge that the matter be carefully considered in order to see if this rule cannot be amended with a view to making it less risky.

In any case, if a series of even minor crashes should mar the Lympne meeting, the public is likely to receive quite an erroneous impression of the safety or otherwise of light 'planes, which will scarcely be helpful in getting people interested.

#### The Slow-Flying Tests at Lympne

Attention is called, in our Light 'Plane and Glider Notes this week, to the dangers which the rules for the slow-flying tests in the forthcoming Air Ministry competitions at Lympne appear to impose. Those responsible for drawing up the regulations have decided that the slow-flying tests



**THREE VIEWS OF THE BLACKBURN-NAPIER "CUBAROO" TORPEDO-'PLANE:** This machine is fitted with a Napier "Cub" 1,000 h.p. engine, and carries a crew of three. (See following pages.) The lower photograph shows a number of people sheltering from the rain underneath the starboard lower plane, and illustrates the claim that this is the world's largest single-engined aeroplane.

# THE BLACKBURN-NAPIER "CUBAROO"

A Long-Distance Torpedo-'Plane with 1,000 H.P. Napier "Cub" Engine

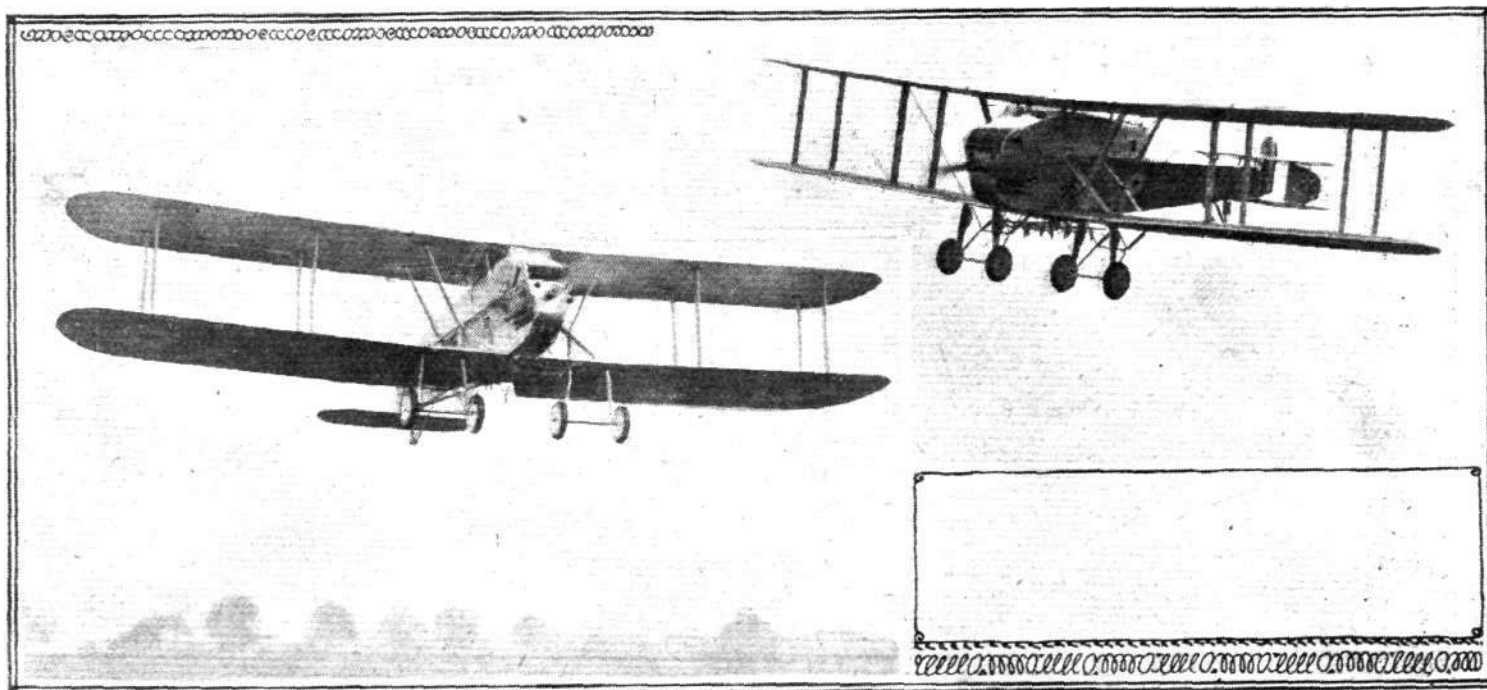
WHATEVER may be the position of Great Britain in the matter of modern single-seater fighters, there can be no doubt that in one class of aeroplane, at least, this country is well ahead of all others. We are referring to the class known as a torpedo-plane, and of which several interesting types have already been produced and put into service. Another step forward in the development of this class of machine has undoubtedly been made with the new Blackburn-Napier "Cubaroo," recently finished by the Blackburn Aeroplane and Motor Company of Leeds. This machine, which is claimed to be the first in the world to be specially designed for the Napier 1,000 h.p. "Cub," was demonstrated at Brough, the Blackburn Company's seaplane station on the Humber, on Thursday of last week before a gathering of Air Ministry experts and representatives of a number of foreign governments. By the courtesy of the Napier and Blackburn firms we were privileged to witness the flying tests, which were carried out by Flight-Lieutenant P. W. S. Bulman, M.C., A.F.C., of the Royal Aircraft Establishment, Farnborough.

The weather was about as disagreeable as possible when the party alighted from the train at Brough station; not only did it rain cats and dogs, but the impression of many of the visitors must have been that it rained "Cubs" and "Lions." At the Brough factory the great machine was having a few finishing touches put to it in one of the large sheds, and while the rain pattered on the corrugated roof the visitors

The biplane wings are designed to fold back so that the machine shall occupy as little space as possible, this being a matter of very considerable importance for the sort of work for which it is designed. As our photographs will show, the joints and hinges in the wings occur at the outer undercarriage struts and, of course, at the sloping inter-plane struts meeting the top plane. As usual in such designs, a jury strut is placed between top and bottom front spars when the wings are folded.

Two separate undercarriages of very wide track, and each consisting of two four-foot Palmer wheels, support the machine on the ground, the space between the two undercarriages being quite clear for the torpedo which is slung under the fuselage. Of the mounting of this torpedo, and the devices for heating it, etc., nothing may be said, but a general idea can be formed from an inspection of the photographs.

The "Cubaroo" is designed for a crew of three, two of whom are accommodated in the pilot's cockpit ahead of the top leading edge and above the rear portion of the engine. The third member of the crew conducts most of his business in the rear cockpit, which, it will be seen, is well raised and gives a very wide field of fire for the rear machine gun. It may be mentioned that ladders lead from the lower rear cockpit to a central cabin, and from this again to the pilot's cockpit. The view from the latter is exceptionally good, as the pilot is placed well above the engine, over the cowlings of which



**TWO VIEWS OF THE BLACKBURN "CUBAROO" IN FLIGHT:** The photograph on the left shows the machine taking off.

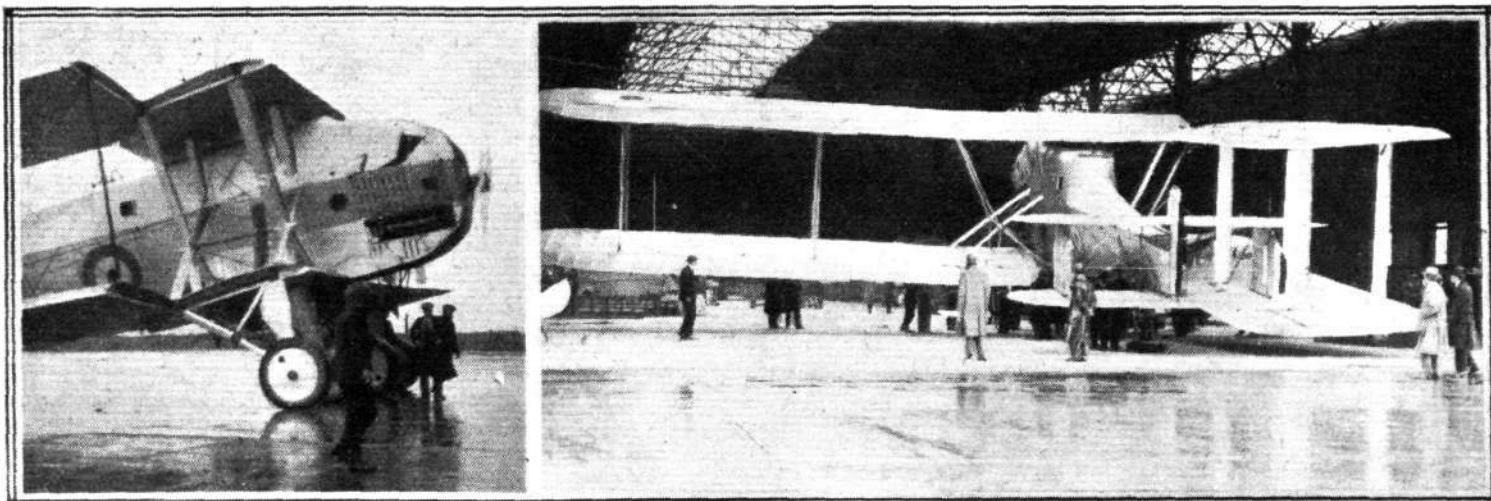
were conducted around by Mr. Rhodes of the Blackburn Company and by General Festing, who has now joined this firm as foreign representative. The Napier Company was represented by Messrs. Winter and Jones, who were ready with any information required relating to the huge Napier "Cub" engine.

Although the Air Ministry has decreed that external views of the machine may be published, it is not permissible to give other than very brief particulars of the Blackburn "Cubaroo." A very fair idea of the size of the machine may be formed by an examination of some of the accompanying photographs. The span of the biplane wings is 88 ft., and the overall length of the machine 54 ft., while the height is close on 20 ft. The total loaded weight is over 9 tons, out of which approximately 3½ tons is useful load. Of performance figures it is not permissible to speak, but it may be stated that long range rather than high maximum speed has been aimed at, and that in addition to its load of "frightfulness" the "Cubaroo" carries fuel for an exceptionally wide cruising range.

he can look forward and downward at quite a considerable angle.

An unusual feature of the fuselage design is that over the rear portion a triangular cross-section is employed, while the forward part is of trapezoidal section. There are, we believe, several reasons for this form of body, but into these it would be imprudent to delve too far, and we must leave it to our readers to draw their own conclusions as to the why and wherefore of an arrangement rarely met with in modern machines.

The 1,000 h.p. Napier "Cub" is, as is well known, of the 16-cylinder "X" type, with four cylinders in each row. In front view the engine is not symmetrical, inasmuch as the two upper cylinder banks are placed at a smaller angle than are the two lower rows. This fact has been made full use of by the designers of the "Cubaroo," and the two upper cylinder banks are entirely cowled in, only the exhaust collector projecting past the sides of the engine housing. The relative narrowness of the engine across the top cylinder heads has also allowed of keeping the nose fairly narrow at



**THE BLACKBURN-NAPIER "CUBAROO":** These two photographs give a good idea of the wing-folding arrangement, and also the view on the left shows the cowling of the Napier 1,000 h.p. "Cub." The right-hand photograph brings out the high position of the rear gunner's cockpit.

this point, thus improving the pilot's view. A curved radiator fits over the top of the nose, and it seems likely that for winter flying the front cockpit may be kept comfortably warm without other heating than that provided by the proximity of the engine and radiator.

A number of interesting features are deserving of mention, but in view of official restrictions the temptation must be resisted, and there remains little else to be said except to give some personal impressions of the flight carried out during the visit to Brough.

During the late afternoon the weather moderated somewhat, and the "Cubaroo" was brought out of the shed and the wings extended. This operation completed, and various minor adjustments having been made, the machine was wheeled out on the aerodrome. Mr. Bulman got into the cockpit, and the small gas starter was set in motion. For a time nothing much appeared to happen, but presently the large airscrew began to turn slowly, and in a couple of minutes, starting from cold, the "Cub" fired and began to tick over merrily. Then followed a wait of some ten minutes while the large engine was warming up. Finally, Mr. Bulman was satisfied, the chucks were removed from under the wheels, and the "Cubaroo" taxied across the aerodrome.

Turning into the wind, the machine stood for a few moments while the pilot surveyed the aerodrome. Then the "Cub" roared and the machine slowly gathered speed. After what appeared an extremely short run for such a large machine,

the "Cubaroo" "floated" into the air (no other word describes the take-off), and the huge aeroplane climbed steadily. Flight-Lieut. Bulman then commenced a series of evolutions such as steeply banked turns, slow and fast flying, etc., and we doubt if ever a pilot has given press photographers such an excellent opportunity for getting "close-up" pictures of a machine in the air. Time after time he circled very low, slipping slowly past the small mound on which the onlookers were standing, and then, opening out the engine, climbing in a right-hand turn to repeat the manoeuvre.

The Napier "Cub" appeared to run without a stutter, and the smoothness with which it picked up after being throttled down was particularly noticeable. The speed range of the machine seemed very good, although it should, of course, be remembered that the machine was flying light, and that with full load the performance would scarcely have been as good. Nevertheless, from the way in which the machine handled on the occasion of our visit, and making due allowance for the skill of Flight-Lieut. Bulman, there is little doubt that the defence forces of this country have received—or, rather, will receive when the type is put into production—a most valuable addition in the Blackburn-Napier Cubaroo torpedo-plane. More than that it is scarcely possible to say at the moment, but the Blackburn Company is to be congratulated upon the production of such a formidable weapon of defence, and the Napier Company on the 1,000 h.p. engine which has made it possible.

## THE GRAND PRIX FOR COMMERCIAL AEROPLANES

THIS year's Grand Prix for commercial aeroplanes was flown over the route Paris-Bordeaux-Paris, and competitors were required to cover the distance once a day for three consecutive days. The journey from Paris to Bordeaux and back is approximately 1,030 kilometres (640 miles), so that in all the competitors had to fly a distance of 1,920 miles. The award of the first prize of 300,000 francs, and second prize of 200,000 francs, was based upon a formula, according to which the machines were judged. The formula was  $P V^2$

— in which  $P$  = useful load carried,  $V$  = speed attained,  $W$  in km/h, and  $W$  = the horse-power of the engines.

Three machines had been entered for this year's Grand Prix for commercial aeroplanes—the Farman four-engined monoplane which ultimately proved the winner, the four-engined Blériot, and the three-engined Caudron. The Caudron machine had to retire after several attempts, leaving only the Farman and Blériot machines in the running.

The main characteristics of the Farman "Jabiru" are as follows: Length, o.a., 46 ft.; span, 62 ft. 4 ins.; wing area, 872 sq. ft. Power plant, four Hispano-Suiza engines of 180 h.p. each. Weight of machine empty, 7,570 lbs. Total loaded weight, 11,450 lbs.

The Blériot four-engined machine was the type described and illustrated in *FLIGHT* on July 12, 1923, known as the type 115, but four Salmson engines had been fitted in place of the four 180 h.p. Hispano engines with which the original machine was equipped. The type number was altered to Blériot 135. The total power was 920 h.p.

The three-engined Caudron, type C. 81, was fitted with three Salmson engines of a total power of 1,020 h.p.

The Grand Prix commenced on August 20 and finished on August 22. The machines started from le Bourget, flew to Bordeaux, where there was a compulsory stop of 45 minutes, and then returned to le Bourget. The Caudron machine came down near Tours with magneto trouble, and although another start was made later, Patin ultimately decided to abandon the attempt. Very bad weather was encountered on all three days, but in spite of this fact the two remaining machines made fairly good time. The Farman, piloted by Bossoutrot and Coupet, and with Marcel Lebourg as mechanic, made the following speeds over the Paris-Bordeaux-Paris route:—First day 178·405 km./h. (111·3 m.p.h.) (37·575 points). Second day, 180·022 km./h. (112·5 m.p.h.) (38·259 points). Third day, 175·713 km./h. (110 m.p.h.) (37·284 points). Total, 113·118 points. It should be pointed out that the useful load (which did not include fuel and crew) was 850 kgs. (1,870 lbs.).

The Blériot 135 was piloted by Bizot and Villechanoux, with Capt. Dagnaux as navigator. The first flight was made at the average speed of 141·59 km./h. (88·5 m.p.h.), and the number of points gained was 21·856. Second day, 148·101 km./h. (92·5 m.p.h.). Points 23·912. Third day, 150·839 km./h. (98·7 m.p.h.). Points 24·805. Total 70·573 points. The Blériot, with a greater engine power, was carrying 1,000 kgs. (2,200 lbs.) useful load, and the lower speed was against it, the more so as the square of the speed is used in the formula and a premium thus placed on speed rather than on useful load per h.p.

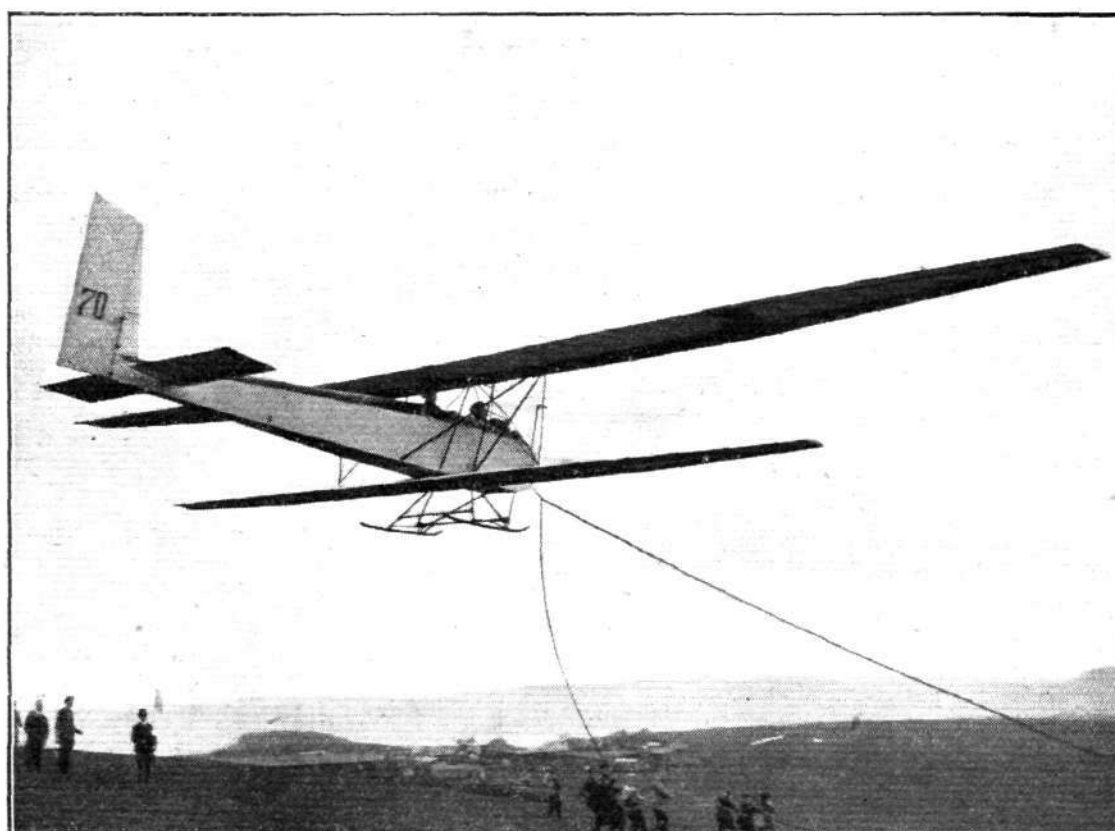
# LIGHT 'PLANE AND GLIDER NOTES

*Those wishing to get in touch with others interested in matters relating to gliding and the construction of gliders are invited to write to the Editor of FLIGHT, who will be pleased to publish such communications on this page, in order to bring together those who would like to co-operate, either in forming gliding clubs or in private collaboration.*

As announced under the Official Notices of the Royal Aero Club in last week's issue of FLIGHT, this year's race for the Grosvenor Challenge Cup and £150 in prizes will be flown on October 4 at the Lympe aerodrome, and will be confined to light 'planes with an engine capacity not exceeding 1,100 c.c. Thus the general public will have an opportunity to see the latest types of British light 'planes competing in a handicap race, and it is to be hoped that many will avail themselves of this opportunity. Unfortunately, Lympe is not very centrally situated, and it seems doubtful whether large numbers will take the trouble to journey down to Lympe in order to see a handicap race for small machines, and in one way it might have been better to have arranged for this race to be flown somewhere nearer London. There is, however, much to be said for holding it at Lympe: The machines will already be there, and so competitors will not have to bear any expense beyond the entry fee of £2

to pilots and machines. These tests are, it will be remembered, to be flown over a straight-line course of not less than 500 yards in length and 25 yards wide. The machines are to fly at a constant height of not more than 20 ft. Quite apart from the fact that it will be impossible for pilots to fly at a "constant" height with their machines near the stalling angle, it would appear that 100 ft. should have been chosen for the height. If a machine stalls at 20 ft.—and flying very close to the angle of maximum lift and with the engine throttled down a small gust will easily cause a machine to stall—it is almost sure to dive straight into the ground. On the other hand, the drop of a light 'plane after stalling is usually very short, and if the height stipulated had been 100 ft., or even 50 ft., most machines would doubtless pull out of the stall before hitting the ground. It may be argued, of course, that from 20 ft. a pilot is not likely to get seriously injured, but the impact of landing will certainly be likely to damage the machine seriously.

PERSONALLY we do not envy the pilots who have to fly in the slow-speed tests. If they play for safety and keep reasonably far away from the stalling angle their employers are apt to consider that by "sailing a bit closer to the wind"



From the Rhön Meeting: Launching No. 70, the Ksoll biplane glider "Breslau." Note that a passenger is carried.

and the small amount of fuel and oil consumed in the actual race.

THE reason for making it a handicap race is probably that the Air Ministry trials during the week will have shown fairly exactly the speed of which each machine is capable, and consequently it should be possible so to handicap the competitors as to ensure a very close finish. Also such a race will place on a fairly equal footing the machines designed to gain their marks in the Air Ministry Competitions at the upper end of the scale and those designed with a view to obtaining large speed range by having a very low landing speed. The only uncertain feature then becomes the weather on the day of the race, but if the handicapping is done the day before the race, with full use being made of the weather forecast from the Air Ministry, it should be possible to give the slower machines a fairly equal chance. The number of machines entered will naturally depend upon the number of crashes during the week, as it seems very unlikely that all the machines will get through the low-speed tests of the A.M. competitions intact.

It would appear that the arrangement decided upon for the low-speed tests is open to criticism on the score of safety

the speed might have been kept a mile or two lower, with consequent considerable gain in marks awarded, while the pilots who like to run the risk will be very likely to crash and so put the machine out of the competition. Any way one looks at it, the pilots will, we are afraid, have a rather thankless job.

INCIDENTALLY, a series of crashes will not be likely to inspire the general public, or even the young sportsmen to whom presently the trade hopes to sell light 'planes, with confidence in low-power machines, but presumably the Air Ministry regards the competitions more by way of being a scientific experiment, and trusts that the public will realise the difference between this and ordinary straightforward flying.

THE official entry list for the Lympe competitions now totals 18 entries. The last three to be entered are: No. 16, Vickers, Ltd., and Nos. 17 and 18, George Parnall and Co. There is a possibility that one or two more may be entered later at double entry fee, but this is not considered probable, so that it may be taken that 18 is likely to represent the total number of machines that will take part. This is scarcely as many as one might have wished for, but the fact that some



From the Rhön Meeting: The Espenlaub V gets away. This machine is numbered 29 in our table of particulars.

three or four firms have, for various reasons, refrained from entering machines has necessarily reduced the number below that originally expected.

LAST week we referred to the attempt being made to form a light 'plane club in Yorkshire. We now learn that a meeting was held at Harrogate on August 18, at which it was decided that a light aeroplane club be formed and that it should be called "The Yorkshire Light 'Plane Club." The object of this club is to gather together a membership of those interested in flying, to teach flying, and to provide and maintain a number of single-seater and two-seater machines for the use of members. The following temporary officers were elected: H. Gledhill, Chairman; S. Bates, Hon. Treasurer; E. T. W. Addyman, Hon. Secretary.

THE following minutes were adopted: (1) That the club be called "The Yorkshire Light 'Plane Club." (2) That the

Hon. Secretary should communicate with the Air Ministry with a view to obtaining the Government subsidies and conditions of their grant. (3) That a general meeting be held on the first Monday evening following the light 'plane trials at Lympne. Messrs. Blackburn and Oldroyd, of the Blackburn Aeroplane Co., of Leeds and Brough, were in attendance, and promised their support. Those interested or desiring further information should communicate with the Hon. Secretary, Mr. E. T. W. Addyman, The White House, Starbeck, Harrogate. The place of the first meeting has not yet been decided, but those wishing to be present should write to the Hon. Secretary, and should make a note of the date, October 6.

THE Rhön meeting in Germany is now in full swing, and we are able to give this week a table of data relating to the machines taking part. This table, published on page 542, has been compiled from a somewhat similar table published

From the Rhön Meeting: No. 46 ("Moritz") and No. 35 ("Margarete") in the air together. On this occasion "Margarete" is not carrying a passenger.



## THE RHÖN MACHINES, 1924

| No. | Type. | Constructor.                      | Name.                    | Span. |      | Area. | Length o.a. |      |
|-----|-------|-----------------------------------|--------------------------|-------|------|-------|-------------|------|
|     |       |                                   |                          | Ft.   | ins. |       | Ft.         | ins. |
| 1   | B     | Dessau Glider Soc.                | Biplane                  | 26    | 4    | 172   | 16          | 5    |
| 2   | M     | Techn. Aero. Soc., Halle          | "Gretchen"               | 39    | 5    | 172   | 19          | 0    |
| 3   | M     | Techn. Aero. Soc., Dessau         | "Der Dessauer"           | 41    | 4    | 167   | 18          | 8    |
| 4   | M     | Weltensegler Co.                  | "Hol's der Teufel"       | 39    | 5    | 194   | —           | —    |
| 5   | M     | D.L.V., Bamberg                   | Monoplane                | 39    | 5    | 151   | 16          | 5    |
| 6   | M     | D.L.V., Bamberg                   | Harth-Pilotus S.9        | 39    | 5    | 151   | 16          | 5    |
| 7   | M     | Bahnbedarf, Darmstadt             | Bahnbedarf E.1           | 36    | 1    | 135   | 16          | 3    |
| 8   | M     | Udet Works, Munich                | Udet "Kolibri"           | 32    | 10   | 135   | 18          | 0    |
| 9   | B     | W. Peltzner                       | Hangeleiter*             | 20    | 8    | 161   | 10          | 2    |
| 10  | B     | W. Peltzner                       | Hangeleiter*             | 18    | 5    | 151   | 10          | 2    |
| 11  | B     | Arb.-Gem. Untfr., Würzburg        | "Frohe Welt"             | 26    | 4    | 215   | 18          | 1    |
| 12  | M     | Messerschmidt, Bamberg            | S. 14                    | 45    | 3    | 203   | 18          | 1    |
| 13  | M     | Messerschmidt, Bamberg            | S. 16                    | —     | —    | —     | —           | —    |
| 14  | M     | Messerschmidt, Bamberg            | S. 15                    | —     | —    | —     | —           | —    |
| 15  | M     | Lippe Waggon Co., Detmold         | "Roemryke Berge"         | 52    | 6    | 188   | 17          | 9    |
| 16  | M     | Hannover Waggon Works             | "Greif"                  | 38    | 0    | 172   | 18          | 1    |
| 17  | M     | Hannover Waggon Works             | "Pelikan" (H.6)          | 49    | 3    | 161   | 17          | 3    |
| 18  | B     | Techn. High School, Aachen        | "Pipo"                   | 24    | 7    | 161   | 19          | 9    |
| 19  | M     | Aachen Glider Works               | "Blaue Maus"             | 39    | 5    | 172   | 13          | 5    |
| 20  | M     | Baugruppe, Sperber                | "Knorke"                 | 39    | 5    | 155   | 16          | 5    |
| 21  | M     | Paetz-Haszloch, Kissingen         | P.H.2                    | 34    | 2    | 156   | 17          | 5    |
| 22  | B     | Model and Glider Soc., Fulda      | Biplane                  | 32    | 10   | 226   | 14          | 9    |
| 23  | M     | Model and Glider Soc., Fulda      | Parasol Mono.            | 46    | 0    | 161   | 18          | 1    |
| 24  | M     | Heidecke, Naumburg                | "Fliegendes Baby"        | 36    | 1    | 161   | 18          | 5    |
| 25  | M     | Uellenberg, Barmen                | "Else"                   | 46    | 0    | 196   | 14          | 9    |
| 26  | M     | Berg. Aero. Soc., Elberfeld       | "Graf Adolf v. Berg"     | 48    | 0    | 188   | 17          | 5    |
| 27  | M     | Sablatnig Works                   | "Charlotte"              | 47    | 7    | 183   | 10          | 7    |
| 28  | M     | Academ. Fl. Group, Charlottenburg | School Machine           | 36    | 9    | 173   | 16          | 2    |
| 29  | M     | Espenlaub, Grunau                 | Espenlaub V.             | 49    | 3    | 161   | 16          | 5    |
| 30  | M     | Espenlaub, Grunau                 | School machine           | 32    | 10   | 151   | 16          | 5    |
| 31  | M     | Aachen Glider Works               | Monoplane                | 39    | 5    | 183   | 19          | 9    |
| 32  | M     | Bahnbedarf, Darmstadt             | "Geheimrat"              | 39    | 9    | 140   | 18          | 1    |
| 33  | M     | Bahnbedarf, Darmstadt             | "Hessen"                 | 36    | 5    | 142   | 15          | 9    |
| 34  | M     | Bahnbedarf, Darmstadt             | "Konsul"                 | 61    | 6    | 230   | 20          | 10   |
| 35  | M     | Academ. Fl. Group, Darmstadt      | "Margarete"              | 49    | 3    | 264   | 25          | 3    |
| 36  | M     | Academ. Fl. Group, Darmstadt      | "Mahomet"                | 34    | 6    | 129   | 19          | 1    |
| 37  | B     | Schweinfurt Ae. Club              | Biplane                  | 26    | 3    | 215   | 16          | 5    |
| 38  | M     | Schweinfurt Ae. Club              | Monoplane                | 42    | 4    | 161   | 16          | 5    |
| 39  | M     | Steinfurth Works, Koenigsberg     | F.S.10                   | 42    | 8    | 167   | 16          | 5    |
| 40  | M     | Schulz Works, Tilsit              | F.S.9                    | 46    | 0    | 167   | 16          | 5    |
| 41  | M     | Schulz Works, Tilsit              | P.R. IV                  | 37    | 1    | 167   | 18          | 5    |
| 42  | M     | Barthmusz, Weizenfurth            | Monoplane                | 41    | 4    | 188   | 20          | 8    |
| 43  |       | Dr. Krüger, Inlem                 | —                        | —     | —    | —     | —           | —    |
| 44  | M     | Prometheus Works, Hann.           | "Strolch"                | 46    | 0    | 151   | 15          | 5    |
| 45  | M     | Rhön Furniture Co., Fulda         | "Max"                    | 46    | 0    | 151   | 15          | 5    |
| 46  | M     | Rhön Furniture Co., Fulda         | "Moritz"                 | 46    | 0    | 151   | 15          | 5    |
| 47  | M     | Rhön Furniture Co., Fulda         | Two-seater "Strolch"     | 49    | 3    | 242   | 19          | 8    |
| 48  | M     | Rhön Furniture Co., Fulda         | Two-seater "Strolch"     | 49    | 3    | 242   | 19          | 8    |
| 49  | M     | Rhön Furniture Co., Fulda         | M.M. I                   | 27    | 11   | 86    | 13          | 2    |
| 50  | M     | H. Hirth, Cannstatt               | Parasol Mono. II         | 23    | 7    | 86    | 14          | 9    |
| 51  | M     | H. Hirth, Cannstatt               | Parasol Mono. I          | 38    | 1    | 151   | 14          | 9    |
| 52  | B     | Bahnbedarf, Darmstadt             | Pforzheim "Geheimrat"    | 39    | 5    | 162   | 18          | 1    |
| 53  | M     | H. Nowak                          | "Schlagel u. Eisen"      | 42    | 8    | 172   | 16          | 5    |
| 54  | M     | Albatros Works, Berlin            | S.S. I                   | 44    | 7    | 194   | 15          | 9    |
| 55  | M     | Blume-Hentzen                     | "Habicht"                | 39    | 5    | 118   | 17          | 1    |
| 56  | M     | R. Weinlig, Gieszen               | School Machine           | 39    | 5    | 155   | 16          | 5    |
| 57  | M     | Udet Works, Munich                | U. VII "Kolibri"         | 32    | 10   | 135   | 18          | 1    |
| 58  | M     | Steinmann, Hagen i. W.            | School Machine           | 32    | 10   | 162   | 16          | 5    |
| 59  | M     | Steinmann, Hagen i. W.            | School M/c. "Baby"       | 31    | 2    | 194   | 15          | 9    |
| 60  | M     | Steinmann, Hagen i. W.            | Monoplane                | 53    | 10   | 194   | 19          | 8    |
| 61  | B     | Glider Works, Baden-Baden         | "Aero-Präsident"         | 41    | 4    | 291   | 17          | 5    |
| 62  | M     | Glider Works, Baden-Baden         | "Bremen-Helgoland"       | 44    | 7    | 183   | 16          | 5    |
| 63  | M     | Glider Works, Baden               | "Dt. Aar-Frundsberg"     | 69    | 0    | 410   | 23          | 0    |
| 64  | M     | Glider Works, Baden               | "Schwarmer"              | 46    | 0    | 162   | 17          | 1    |
| 65  | B     | Glider Works, Baden               | "Excellenz-Fliegergeist" | 41    | 4    | 291   | 17          | 5    |
| 66  | B     | Glider Works, Baden               | "Minister Brandenburg"   | 41    | 4    | 291   | 17          | 5    |
| 67  | B     | Glider Works, Baden               | "Professor Leibfuchs"    | 41    | 4    | 291   | 17          | 5    |
| 68  | M     | Glider Works, Baden               | "Stockholm-Wien"         | 41    | 4    | 215   | 19          | 1    |
| 69  | M     | Karl Wendel, Grimm                | Monoplane                | 39    | 5    | 168   | 16          | 5    |
| 70  | B     | J. Ksoll, Schon-Ellguth           | "Breslau"                | 59    | 1    | 301   | 23          | 0    |
| 71  | M     | J. Ksoll, Schon-Ellguth           | "Galgenvogel II"         | 49    | 3    | 129   | 18          | 1    |
| 72  | M     | K. Berr, Koenigsberg              | Monoplane                | 42    | 8    | 178   | 18          | 1    |
| 73  | B     | E. Prus. Aero Club                | Biplane                  | —     | —    | 183   | 19          | 8    |
| 74  | M     | Baumer Aero., Hamburg             | Monoplane                | 32    | 10   | 146   | 24          | 7    |
| 75  | —     | Roloff                            | —                        | —     | —    | —     | —           | —    |
| 76  | —     | Lubeck Aero Club                  | —                        | —     | —    | —     | —           | —    |
| 77  | —     | Gotha Aero Club                   | —                        | —     | —    | —     | —           | —    |
| 78  | —     | Zwickau Aero Club                 | —                        | —     | —    | —     | —           | —    |

\* Hangeleiter denotes a machine in which the pilot is supported by the armpits and which he controls by swinging his legs.

in our German contemporary, *Flugsport*. The dimensions have been converted into British measurements so as to facilitate the use of the table by British readers. In the case of the names of the firms or institutions who have built the various machines an attempt has been made to give a translation of the title, but in some cases this has not been possible, sometimes because of the lengthy title, and in a few cases owing to other reasons. In the main, however, we hope the table will be found accurate and of interest to our readers.

In the table of data light 'plane numbers are printed in bold type. Space did not allow of giving, in the same table,

engine fitted in No. 31, but "Mahomet," the monoplane of the Akademische Fliegergruppe, Darmstadt (No. 36) has a 696 c.c. Blackburne.

AMONG the light 'planes is also No. 39, designed by Herr F. Schulz and built by a Koenigsberg carriage works. It is not, however, known what engine Herr Schulz has chosen. No. 44, the famous "Strolch" of the Prometheuswerke, Hannover, has a German Ilo motor of 296 c.c. This is stated to be a two-cylinder two-stroke developing  $4\frac{1}{2}$  h.p. at 2,500 r.p.m. It is not known what engines will be fitted in Nos. 45 and 46, "Max" and "Moritz," and one of our photo-



Two-seater  
Gliders: Front  
portion of the  
"Margarete"  
(No. 35), showing  
two cockpits and  
peculiar mount-  
ing of the  
monoplane wing.

particulars of the engines fitted in the light 'planes, but it may be of interest to run through the list and indicate briefly the engines with which the various machines are fitted. No. 7 is fitted with a 696 c.c. Blackburne "Tomtit," while the Udet "Kolibri," recently illustrated in these notes, has a 500 c.c. Douglas. The latter engine is also fitted in Nos. 13 and 14, two Messerschmidt-built machines. No. 20 is fitted with a German two-cylinder two-stroke engine of 588 c.c. capacity, while 29, the Espenlaub V, is stated to have a 500 c.c. Douglas. No information is available concerning the

graphs shows the "Moritz" flying as a pure glider. 47 and 48, two-seater "Strolchs," have Douglas 595 c.c. engines, as has also No. 49, the M.M. I. No engine is given for Nos. 50 and 51, and for No. 61 and onwards the only information available is that the type of engine is according to choice.

No. 54, the S.S. I, has an Ilo of 296 c.c.; the "Habicht," No. 55, designed and built by Blume and Hentzen, has a Siemens of 750 c.c., and No. 57, a second Udet "Kolibri," is stated to be fitted with a 750 c.c. Douglas.

### Pelletier D'Oisy Returns

LIEUT. PELLETIER D'OISY, the famous French aviator, who caused such general admiration recently by his meteoric flight from Paris to Tokio, and his mechanic Sergeant Bezin, returned to Paris on Saturday last, August 23. In spite of the early hour of the arrival of the train from Marseilles, the Gare de Lyons was crowded with people who wished to welcome the gallant aviators and to express their appreciation of the fine flight. Numerous aviators were present and many of D'Oisy's fellow officers, as well as civilians of all classes. The two fliers were lifted shoulder high and thus carried to their motor-car. Owing to the holiday season, no official welcome had been arranged, but later on it is expected that the French Government, the municipal authorities and other official institutions will give a series of receptions and banquets in their honour.

### Fatal R.A.F. Accident

WE regret to have to record the death, owing to an aeroplane accident, of Flying Officer J. Harcourt Vernon and First-Class Aircraftsman Carpenter. While engaged in manoeuvres near Chichester, on August 26, their machine crashed from a considerable height at Lavant and both occupants were killed instantaneously. The machine, a

Bristol Fighter, belonged to a detachment of B Squadron, Andover, but was temporarily stationed at Tangmere aerodrome, near Chichester. It is believed that possibly the cause of the accident may have been a stall following on loss of flying speed.

### Cross-Channel Air Ferry?

It is reported that negotiations are on foot between British and French authorities concerning a flying boat service between Folkestone and Boulogne. If the scheme matures it is, we understand, intended to run a frequent service with Supermarine-Napier "Swan" flying boats, which would be capable of effecting the crossing in about 30 minutes, as against the 90 minutes or so taken by the steamer. Probably a fare of about £1 will be charged. The boats would connect with trains on both sides of the Channel.

### Air Force and Wahabi Defeat

ACCORDING to the *Morning Post* Cairo correspondent it appears that the Royal Air Force played an important part in the defeat of the Wahabis after their attack on the Beni Sakr tribe. On the arrival of the British armoured cars and machines of the R.A.F. the Beni Sakr tribe rallied and chased the Wahabis, who are reported to have fled precipitately, suffering 500 casualties, mostly due to bombing.

# THE ROYAL AIR FORCE

London Gazette, August 19, 1924

## General Duties Branch

Flight-Lieut. J. R. I. Scambler, A.F.C. (Lieut. R.A.), is granted a permanent commn. in rank stated (Aug. 20). Capt. A. B. F. Alcock, D.S.C., R.M., is granted temp. commn. as Flying Officer on attachment to the R.A.F. for four years (July 21) (substituted for *Gazette*, Aug. 5, as regards this officer). The following Pilot Officers are promoted to rank of Flying Officer:—G. H. Randle, R. W. G. Lywood (June 20); R. S. Blucke (July 9); C. F. Sealy (July 20). Flight-Lieut. H. J. Edgar is resd. to full pay from h.p. (Aug. 13); Flight-Lieut. D. H. Dabbs is transferred to Reserve Class C (Aug. 20); Pilot Officer A. D. B. Trevor resigns his short service commn. (Aug. 6).

## Stores Branch

Squadron-Leader (actg. Group Capt.) H. C. Ellis, C.B.E. (Lieut.-Col. R.A.P.C.), relinquishes his temp. commn. on return to Army duty (Aug. 14); Flying Officer H. J. Dann is dismissed the service by sentence of General Court Martial (June 30).

## Reserve of Air Force Officers

The follg. are granted commns. in Class A, General Duties Branch, in the ranks stated (Aug. 19):—*Flying Officer*.—A. C. Campbell Orde, A.F.C. *Pilot Officer*.—A. J. C. Overal.

The follg. Officers are confirmed in rank with effect from the dates indicated:—*Flying Officers*.—T. C. Lowe, M.C. (Dec. 26, 1923); W. A. Mackay, D.C.M. (June 27); P. T. Hubbard (July 2); J. A. A. Barber (July 29); C. F. W. Dod, H. T. Townsend (Aug. 5); G. B. Powell, A.F.C. (Aug. 12); O. P. Jones, A. S. Wilcockson, R. M. H. Young (Aug. 19). *Pilot Officers*.—E. C. Brown (July 29); A. Barron, A. E. Betts, A. L. Robinson, R. F. Cathrow (Aug. 5); G. T. E. B. Dorman, S. J. Wheeler (Aug. 19). Squadron-Leader H. C. Fuller is transferred from Class B to Class C (Oct. 1, 1923).

## Princess Mary's Royal Air Force Nursing Service

The follg. Sisters resign their appts. (Aug. 3):—Miss R. Cassidy, Miss D. H. Rich.

## ROYAL AIR FORCE INTELLIGENCE

**Appointments.**—The following appointments in the R.A.F. are notified:—

### General Duties Branch

*Group Captains*: F. W. Bowhill, C.M.G., D.S.O., to H.Q. Egypt for duty as Chief Staff Officer. 15.8.24. K. G. Brooke, C.M.G., to H.Q., Iraq, for Air Staff duties. 15.8.24.

*Squadron Leader*: G. C. Bailey, D.S.O., to Inland Area Aircraft Depot, Henlow. 20.8.24.

*Flight Lieutenants*: A. G. Jones-Williams, M.C., to No. 8 Sqdn., Iraq. 25.7.24. F. L. C. Butcher, to No. 4 Flying Training Sch., Egypt. 30.7.24. M. Moore, O.B.E., to No. 3 Group H.Q., Spittlegate. 1.10.24. G. B. Holmes, to R.A.F. Base, Calshot. 1.9.24. H. G. W. Lock, D.F.C., to No. 13 Sqdn., Andover. 30.9.24. N. L. Desoer, to remain at No. 2 Sqdn. Manston, instead of to No. 13 Sqdn., as previously notified.

*Flying Officers*: H. C. Pyper, to R.A.F. Depot. 23.8.24. G. R. Hicks, D.F.C., to R.A.F. Base, Calshot. 2.9.24. T. C. Head, to Inland Area, Aircraft Depot, Henlow. 1.9.24. W. E. Cowan, to No. 41 Sqdn., Northolt.

25.8.24. W. G. E. Hayman, to No. 7 Group H.Q., Andover. 10.9.24. G. S. Shaw, to School of Naval Co-operation, Lee-on-Solent. 21.8.24. C. H. Whitlock, to Station H.Q., Duxford, on transfer to Home Establishment. 26.8.24. W. Smith, to Trans-Jordan H.Q., Palestine. 15.8.24. E. F. Thorpe, to H.M.S. *Argus*. 10.8.24. F. H. Davis, to R.A.F. Base, Leuchars. 10.8.24. J. E. L. Drabble, to Miscellaneous Details, Andover Station. 20.8.24. J. Wesley, to No. 1 Sch. of Tech. Training (Boys), Halton. 1.9.24. *Pilot Officers*: H. L. R. Gough, C. R. Troup, H. N. Davies and J. A. Mollison, to R.A.F. Depot. 1.9.24. H. P. Morris, to No. 6 Sqdn., Iraq. 1.8.24.

### Stores Branch

*Flight Lieutenant*: P. J. Murphy, to the Packing Depot, Ascot, on transfer to Home Estab. 6.9.24.

### Medical Branch

*Flight Lieutenants*: W. R. Reith, M.D., A.M., to No. 4 Sqdn., S. Farnborough. 19.8.24. R. G. J. McCullagh to R.A.F. Depot on transfer to Home Estab. 7.8.24.

## ROUND-THE-WORLD FLIGHTS

LAST week we left the American and Italian fliers at Reykjavik, and Major Zanni at Hanoi, where he had crashed in taking off from a very soft aerodrome. News of the mishap did not reach us until *FLIGHT* was actually ready for press, and consequently we could but briefly record, in a short paragraph on the last page of our issue, that the machine had turned over and been badly damaged, although the crew were unhurt. We now learn that, in reply to a telegram from Napier, Major Zanni has stated that the engine is undamaged and has run perfectly the whole way from Amsterdam. Everybody will sympathise with the Argentine aviator in his misfortune, more especially as his flight had, up to the time of the mishap, been carried out at an excellent pace. Not only had the Napier "Lion" been running without a hitch, but actually it is stated not to have been touched at all during the whole of the flight from Amsterdam to Hanoi. Major Zanni is now awaiting another machine at Hanoi. This is the seaplane which had been sent to Japan in readiness for the Pacific crossing, and will now be sent back to Hanoi in order that the flight may be continued from there.

The two American machines piloted by Lieuts. Smith and Nelson respectively and the Italian Dornier "Wal" (two Rolls-Royce "Eagle" engines) left Reykjavik on the morning of Thursday, August 21. The Americans had by then repaired the damage which their machines had sustained during a previous attempt to take off, and as the weather reports, wirelessly by patrol ships on the route between Iceland and Greenland, were favourable, it was decided to start. Lieut. Smith got away first, a few minutes after seven in the morning. He was followed a few minutes later by Lieut. Nelson, and some 10 minutes later the Italians took off. All soon disappeared from view. The morning was fine, and the machines all appeared to take the air easily. Less than 1½ hours after the start the three machines had passed over the U.S. *Richmond*, and Locatelli, although he had started last, was by then leading by about five miles.

Reports are somewhat vague as to the time of arrival of the two American machines in Greenland. One report states that they alighted at 6.10 p.m., while another puts the time

at 8.10 p.m. At any rate the 800 miles' crossing was evidently successfully accomplished, and the two American machines were safely housed at Frederiksdal, near Cape Farewell, the southernmost point of Greenland. In alighting, Lieut. Nelson is reported to have damaged one of the struts of his float undercarriage, but repairs were effected, and the two machines were able to fly to Ivigtut, situated some distance up the west coast of Greenland, where they are being completely overhauled before the flight to Labrador.

Lieut. Locatelli, who had left Iceland in company with the Americans, did not arrive with them at Frederiksdal in Greenland, but for a time no great importance was placed on this fact, as there was a considerable amount of fog, which separated even the two American machines. It soon became evident, however, that something was amiss, and a thorough search by the U.S. cruisers *Richmond* and *Raleigh* was instituted, while aeroplane scouts were sent out to look for the missing Italians. Fogs and bad weather were encountered, rendering the search more difficult, but at last, late in the evening of Sunday, August 24, the Dornier "Wal" was sighted by the *Richmond* some 125 miles east of Cape Farewell. The crew were unhurt, although considerably exhausted after being adrift for more than three days. Locatelli stated that engine trouble had forced them down on the afternoon of August 21, and that they had not been able to get their machine into the air again.

There is some uncertainty as to the fate of the machine. One report states that it will be destroyed according to Locatelli's wish. Why this should be is not at all clear, unless the machine is too large or too heavy for the *Richmond* to hoist on board and towing is found impracticable. Whatever the cause, the all-metal Dornier appears to have proved thoroughly seaworthy, as drifting 100 miles or so in Arctic waters is likely to be a somewhat trying experience. Naturally there was general rejoicing at the news that Locatelli and his companions had been found, and the Italian Minister of Marine has sent a message of thanks to the U.S. naval authorities for their timely assistance and ultimate rescue of the Italian crew of the Dornier "Wal."

## German Night Air Mail

It is reported that the first Berlin-Stockholm night air mail flight was carried out on Junkers machines during the night between August 18 and 19. The first Junkers monoplane left the Tempelhofer field in Berlin at 9.25 p.m., with a large load of mails. At Warnemünde the mails were transferred to a seaplane, which arrived safely with its load in

Stockholm at 5.30 a.m. on the following morning. A similar flight in the opposite direction is also stated to have been successful. These flights, it is hoped, will mark the beginning of a regular night air mail service, although certain arrangements will have to be completed before the regularity of the service can be guaranteed. At present only very urgent emergency cases will be carried.

## AIR MINISTRY NOTICES

### System for Reporting Cross-Channel Flights of Aircraft not Equipped with W/T Apparatus

IN future the following arrangements will be available for pilots of aircraft not equipped with W/T apparatus who wish to have their passage across the Channel reported by W/T:—

(1) An aircraft leaving England must circle over Lympne aerodrome at a height of not more than 1,000 ft.; one circuit will indicate a flight to Ostend, and two circuits a flight to St. Inglevert.

The departure of an aircraft making this signal will be reported immediately to Ostend or St. Inglevert, as the case may be.

(2) An aircraft on arriving over Ostend or St. Inglevert must circle once over the aerodrome at a height of not more than 1,000 ft. The arrival of an aircraft making this signal will be reported immediately to the Air Ministry, London.

(3) In a similar way, an aircraft departing for England

must circle once over the aerodrome at Ostend or St. Inglevert, and signal its arrival in the same way at Lympne.

The departure of an aircraft making this signal will be reported immediately to Lympne, and its arrival at Lympne reported to the Air Ministry.

(4) An aircraft, signalling in the manner indicated its departure from either side of the Channel, which is not reported as having arrived on the other side within one hour after departure will be treated by the Air Ministry as missing, and steps taken to warn all shipping and to put in train such other action as may be possible to carry out a search and to effect a rescue.

(5) It is of the utmost importance that any pilot who decides to avail himself of these arrangements shall, after signalling his departure at one of the three aerodromes named above, also signal his arrival on the other side of the Channel.

(No. 76 of 1924.)

## FINE FEATHERS MAKE FINE 'PLANES

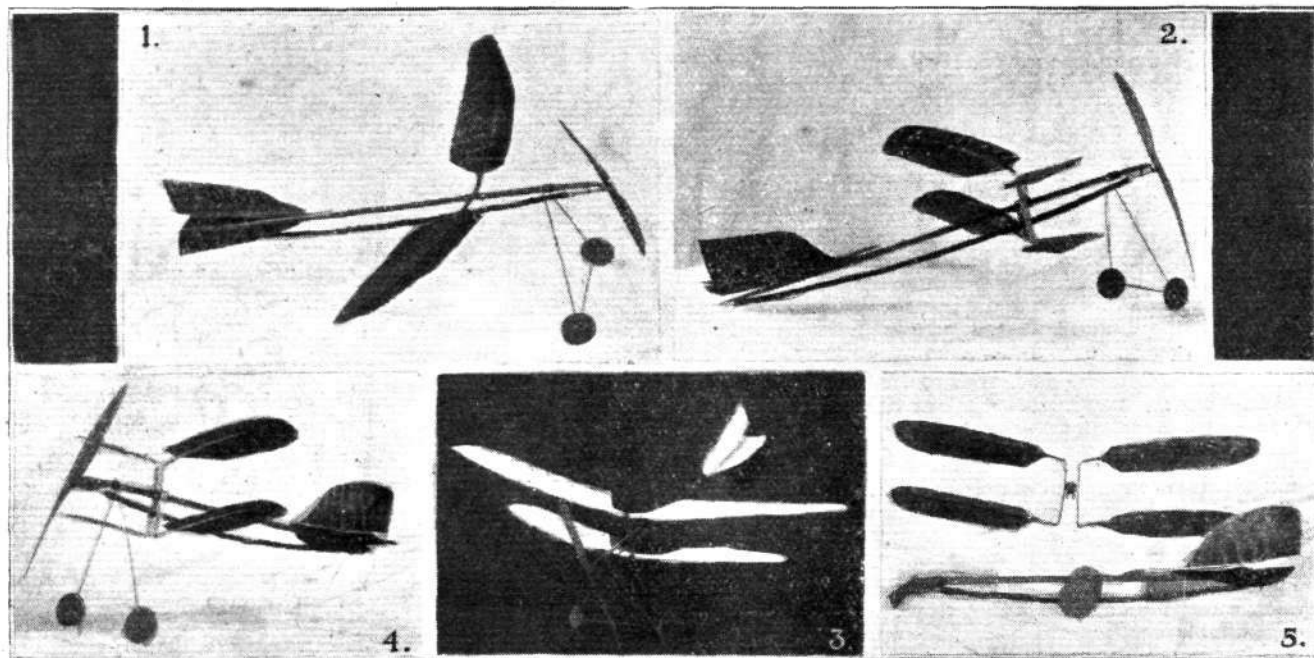
We show in the accompanying illustrations a few examples of some excellent model aeroplanes—excellent both as regards appearances and flying qualities. These "Feather 'Planes," as they are called, are made by Mr. Ralph N. Bullock, of Forest Hall, Northumberland, and, as their name implies, the wings and tail surfaces are constructed of natural feathers. These feathers have to be very carefully selected—and out of a large number of feathers comparatively few are found to be suitable. Suitable feathers are thoroughly steamed and cleaned, paired and trimmed to shape. They are then mounted in small metal fittings which clip on to the wood backbone or fuselage in the case of the main planes, or as regards the tail surfaces, portions of the feathers are

illustrate), which has a span of about 10½ ins., while the other models range from 12 ins. to 18 ins. span.

As regards their performance, the following are the average characteristics of the different types:—

| Type.                    | Weight.               | Max. Speed. | Duration |
|--------------------------|-----------------------|-------------|----------|
| Speed Monoplane ..       | .. $\frac{3}{16}$ oz. | 18.3 m.p.h. | 8 secs.  |
| " Biplane ..             | .. $\frac{1}{4}$ "    | 16.1 "      | 10 "     |
| Standard Monoplane ..    | .. $\frac{5}{16}$ "   | 7.7 "       | 25 "     |
| " Biplane..              | .. $\frac{3}{8}$ "    | 8.3 "       | 20 "     |
| Slow-flying Monoplane .. | .. $\frac{3}{16}$ "   | 6.6 "       | 25 "     |
| Baby Biplane ..          | .. $\frac{1}{16}$ "   | 3.2 "       | 5 "      |

Most of these models make excellent r.o.g. flights, while they can also be made to loop, bank, and roll. Although



SOME EXAMPLES OF "FEATHER PLANES":—(1) A Standard Monoplane. (2) A Standard Biplane. (3) The "Baby" Biplane. (4) The High-speed Biplane, and (5) the same dismantled for transport.

cut to the required shape and pinned to the end of the fuselage. The propellers, which are carefully cambered, steamed and balanced, are supported in a very neat detachable mounting which fits on to the forward end of the fuselage. The landing gear, when fitted, consists of two fibre wheels mounted on a thin steel wire chassis, ingeniously hinged to the fuselage so as to fold out of the way when not in use.

Various types of "Feather 'Planes" are made, both monoplane and biplane, high speed and low speed. They also vary considerably in size—the smallest one we had the pleasure of seeing make an excellent r.o.g. flight being 3 ins. span, 2 ins. in length, and having a feather propeller 1 in. diameter. The next size is the Baby Biplane (which we

they naturally require somewhat delicate handling and a little practice to get the best results, they are nevertheless extraordinarily "robust," and we can say from personal knowledge that having once got the knack of handling them, some really excellent flying can be obtained with the different types. With one of the larger monoplanes Mr. Bullock has made over 1,500 flights of approximately 100 yds. each (about 80 miles!) during a period of about 18 months, and the only replacements made have been new rubber for the motor. One of these "Feather 'Planes," weighing only  $\frac{3}{8}$  oz., put up an excellent performance at the recent S.M.A.E. competition for the Gamage Challenge Cup—when it accomplished a duration of 77½ secs.

## AIR POST STAMPS

By DOUGLAS B. ARMSTRONG.

### Cape Town-Johannesburg Air Mail

A SOUTH AFRICAN air post cover that is seldom seen is that carried on the "Handley Page" plane "Pioneer," which left Cape Town on February 15, 1920, with passengers and mails for Johannesburg, but broke down through engine trouble and had to be abandoned near Beaufort West, Cape Province. The mail, consisting of a few score circular letters addressed by two Cape Town milling firms to their customers in Johannesburg, was forwarded by rail, and delivered in the Golden City on February 21, 1921. They bore a rubber stamp cachet, "CARRIED BY AEROPLANE," in two lines of block capitals, in addition to a circular stamp inscribed "Handley Page South African Transport, Ltd.," postage being prepaid in ordinary postage stamps of the Union of South Africa to the value of 2s. 1d.

### Fifth Danzig Issue

A FOKKER plane flying over the free city furnishes the design of a new series of Danziger air post stamps, with values in gold currency, that has recently been brought into use. On the wings of the plane are the words "Flug-Post" in colourless Gothic characters. The stamps themselves are surface printed on paper watermarked with a hexagon pattern, and perforated 14. They comprise: 10 pfennigs red, 20 pf. rose, 40 pf. brown, 1 guilder green and 2½ gld. deep lilac, the last-named being executed in large upright rectangular format. Inset in the upper part of the design is a shield bearing the city arms of Danzig, a crown above two white crosses.

Four previous issues of air post stamps have emanated from the free port since September 29, 1920, when three values of over-printed German stamps issued under authority of the International Commission were additionally surcharged for use in the short-lived Stettin to Königsberg service. Following the resumption of the air mail system, however, five stamps of special design were created by the Danzig post office on May 3, 1921, which appeared in a fresh printing early in 1923, and were later replaced by new values in the same type made necessary by currency depreciation. The last air post series, comprising four denominations showing two aeroplanes in flight vignettéd within the loop of a post-horn, made its début on October 18, 1923, and was in use for a few days only before the air mail service was suspended for the winter.

### Air Stamps for Siam

ON several occasions we have referred to an impending issue of air post stamps for the Land of the White Elephant, and early in the present year some essays that had been prepared were described in this column. It appears that this series was not proceeded with, for a Parisian journal gives details of an entirely different design, that has been approved and returned to Europe for engraving. Traverse oblong in shape, the vignette represents a flying dragon of ferocious mien, with the inscription "Siam Air Mail" and value in English across the top, repeated in Siamese at the bottom of the stamp. It is unlikely that the finished stamps will be ready for service before the New Year.

### Swiss Semi-Officials

APROPOS of our recent remarks on the subject of the resuscitation of semi-official air post labels in connection with various Swiss aviation meetings, the following declaration has been published by the Federal postal authorities at Bern:—

"Attention is drawn to the fact that, as a general rule, the so-called official post-cards or aerial stamps issued by the organisers of aviation meetings and sold to the public at a fixed price have not the same franking power as the stamps of the postal administration. They are not valid by themselves and should not be sold by post offices. Moreover, it is forbidden to postmark them, whether these vignettes are affixed side by side with official stamps or presented for obliteration over the counter separately."

### Vincennes—Poste par Avion

IN connection with the aviation meeting held at Vincennes on June 9 last, when a mail flight was made to Bourget, a set of eight semi-official aero stamps was issued in triangular format showing a picture of an aeroplane, upon a white ground, inscribed "POSTE PAR AVION" at the sides, and "VINCENNES—9 JUIN 1924" at the foot. The values and colours of this series are: 25c., red and mauve; 50c., brown and red; 75c., blue and green; 1 fr., blue and lilac; 2 fr., grey and yellow; 5 fr., brown and blue. They were, apparently, in use for the one day only.

## PUBLICATIONS RECEIVED

Session 1924-25: Department of Aeronautics. Imperial College of Science and Technology, South Kensington, London, S.W. 7.

Eagle VIII and Falcon III Aero Engines. Air Publication 859. London: H.M. Stationery Office, Kingsway, W.C. 2.

Scientific Papers of the Bureau of Standards, No. 487. A Quantitative Study of Regeneration by Inductive Feed Back. By C. B. Joliffe and Miss J. A. Rodman. April 22, 1924. U.S. Government Printing Office, Washington, D.C., U.S.A.

Militärwissenschaftliche und Technische Mitteilungen. July-August, 1924. Stubenring 1, Vienna.

Revue Juridique Internationale de la Locomotion Aérienne. August, 1924. Edition Aérienne, 4, Rue Tronchet, Paris.

The Accessory. Vol. 10, No. 108. August-September, 1924. Brown Brothers, Ltd., Great Eastern Street, London, E.C. 2.

Announcements, Educational and Social, for the Session 1924-1925. Northampton Polytechnic Institute, St. John Street, London, E.C.

British Standard Specifications: No. 199.—Electrolytic Copper Ingots and Ingot Bars. July, 1924. No. 200.—Tough Copper Cakes and Billets for Rolling. July, 1924. No. 201.—Fine Copper Cakes for Rolling. July, 1924. No. 202.—Electrolytic Cathode Copper. July, 1924. No. 203.—"Best Select" Copper. July, 1924. British Engineering Standards Association, 28, Victoria Street, London, S.W. 1. Price 1s. each net. Post free, 1s. 2d. each.

All the World's Aircraft, 1924. Compiled and Edited by C. G. Grey. London: Sampson Low, Marston and Co., Ltd. Price £2 2s. net.

Permanent Commissions in the Royal Air Force: Regulations Governing Grant to University Candidates. Air Ministry Publication 904. London: H.M. Stationery Office, Kingsway, W.C. 2. Price 6d. net.

Dominion of Canada: Report on Civil Aviation for the Year 1923. Department of National Defence, Ottawa, Canada. Price 25 cents.

Easy-to-Read Thermometers. Cambridge Instrument Co., Ltd., 45, Grosvenor Place, London, S.W. 1.



## AERONAUTICAL PATENT SPECIFICATIONS

Abbreviations: Cyl. = cylinder; i.c. = internal combustion; m. = motor. The numbers in brackets are those under which the Specifications will be printed and abridged, etc.

### APPLIED FOR IN 1923

Published August 28, 1924.

30,938. W. BEENEY. Divisible rim for wheels of aircraft, etc. (219,869.)

### APPLIED FOR IN 1924

Published August 28, 1924.

4,161. R. C. BROWN. Rotary i.c. engines. (219,891.)

If you require anything pertaining to aviation, study "FLIGHT'S" Buyers' Guide and Trade Directory, which appears in our advertisement pages each week (see page xvi).

## NOTICE TO ADVERTISERS

All Advertisement Copy and Blocks must be delivered at the Offices of "FLIGHT," 36, Great Queen Street, Kingsway, W.C.2, not later than 12 o'clock on Saturday in each week for the following week's issue.

## FLIGHT

The Aircraft Engineer and Airships

36, GREAT QUEEN STREET, KINGSWAY, W.C. 2.

Telegraphic address: Truditur, Westcent, London.

Telephone: Gerrard 1828.

## SUBSCRIPTION RATES

"FLIGHT" will be forwarded, post free, at the following rates:—

| UNITED KINGDOM         |       | ABROAD*                |       |
|------------------------|-------|------------------------|-------|
|                        | s. d. |                        | s. d. |
| 3 Months, Post Free .. | 7 7   | 3 Months, Post Free .. | 8 3   |
| 6 " " "                | 15 2  | 6 " " "                | 16 6  |
| 12 " " "               | 30 4  | 12 " " "               | 33 0  |

These rates are subject to any alteration found necessary under abnormal conditions and to increases in postage rates.

\* Foreign subscriptions must be remitted in British currency.

Cheques and Post Office Orders should be made payable to the Proprietors of "FLIGHT," 36, Great Queen Street, Kingsway, W.C. 2, and crossed London County and Westminster Bank, otherwise no responsibility will be accepted.